IN THE SPECIFICATION

Please replace the paragraph beginning at page 5, line 1, with the following rewritten paragraph:

The gist of the resin-coated hot dip galvanized steel sheet according to the present invention, which could achieve the above-mentioned object, resides in that a resin film formed on a surface of a hot dip galvanized steel sheet comprises a polyolefin copolymer resin molecular-associated by ion cluster to the surface of the hot dip galvanized steel sheet. The resin film further contains, in terms of solids content, 10 to less than 55 mass % of silica particles, 1 to 8 mass % of a first crosslinking agent, and 1 to 8 mass % of tannic acid and/or ammonium vanadate.

Please replace the paragraph beginning at page 5, line 11, with the following rewritten paragraph:

An example of the polyolefin copolymer resin emulsion, which is used in producing the resin-coated hot dip galvanized steel sheet, is emulsion of a polyolefin copolymer resin molecular-associated by ion cluster prepared by ionomerizing an olefin-ethylenically unsaturated carboxylic acid copolymer resin, and by making the resulting ionomer high in molecular weight with use of a second crosslinking agent. The olefin-ethylenically unsaturated carboxylic acid copolymer resin contains 1 to 40 mass % of an ethylenically unsaturated carboxylic acid and optionally contains a (meth)acrylic acid ester component. As the aforesaid olefin, at least one member selected from ethylene and styrene can be used.

Please replace the paragraph beginning at page 6, line 17, with the following rewritten paragraph:

On the other hand, the gist of the method according to the present invention which could achieve the above-mentioned object resides in the steps of applying an aqueous resin coating material to a surface of a hot dip galvanized steel sheet, heating the steel sheet to dry the coating material, and thereby allowing a resin film to be formed on the surface of the hot dip galvanized steel sheet. The aqueous resin coating material comprises emulsion of a polyolefin copolymer resin molecular-associated by ion cluster, 10 to less than 55 mass % of silica particles, 1 to 8 mass % of a first crosslinking agent, and 1 to 8 mass % of tannic acid and/or ammonium vanadate, in terms of solids content.

Please replace the paragraph beginning at page 8, line 16, with the following rewritten paragraph:

In the present invention, emulsion of a polyolefin copolymer resin molecular-associated by ion cluster is used as a resin component in the aqueous resin coating material. It is preferable that the polyolefin copolymer resin emulsion be prepared by ionomerizing an olefin-ethylenically unsaturated carboxylic acid copolymer resin and making the resulting ionomer high in molecular weight with use of a second crosslinking agent. The olefin-ethylenically unsaturated carboxylic acid copolymer resin contains 1 to 40 mass % of an ethylenically unsaturated carboxylic acid component and optionally contains a (meth)acrylic acid component.

Please replace the paragraph beginning at page 9, line 8, with the following rewritten paragraph:

Then, silica particles and a first crosslinking agent are added respectively in predetermined amounts to the resulting polyolefin copolymer resin emulsion, further, tannic acid and/or ammonium vanadate are (is) also added to the emulsion, to prepare an aqueous resin coating material, then this aqueous coating material is applied to the surface of a galvanized steel sheet and subsequently the thus-coated hot dip galvanized steel sheet is heated to a predetermined temperature to dry the coating material and form a resin film, whereby there can be obtained the desired resin-coated hot dip galvanized steel sheet having a film superior in all of electric conductivity, weldability, corrosion resistance, and coatability.

Please replace the paragraph beginning at page 12, line 20, with the following rewritten paragraph:

By adding a second crosslinking agent to the ionomerized resin, allowing crosslinking to take place, there can be obtained a polyolefin copolymer molecular-associated by ion cluster. As to the crosslinking agent used, no limitation is made thereto insofar as the one used can crosslink the carboxyl group contained in the polyolefin copolymer resin molecular-associated by ion cluster. For example, there may be used any of organic compounds having epoxy, isocyanate, carboxyimide, or aziridinyl group. Particularly, an epoxy group-containing crosslinking agent is preferred in point of not only corrosion resistance but also stability and crosslinking efficiency.

Please replace the paragraph beginning at page 13, line 5, with the following rewritten paragraph:

It is preferable that the content of the second crosslinking agent in the film be in the range of 1 to 8 mass % (in terms of solids content). If the content of the crosslinking agent is less than 1 mass %, the crosslinking reaction in the polyolefin copolymer resin molecular-associated by ion cluster becomes insufficient, with the resulting film being deteriorated in corrosion resistance. If the content of the crosslinking agent exceeds 8 mass %, the aqueous coating material gels and can longer be applied to the plated steel sheet. Usually, it is preferable that the crosslinking reaction be carried out under the conditions of a temperature of 30 to 200°C and a pressure of normal pressure to 20 atm. or so.

Please replace the paragraph beginning at page 15, line 11, with the following rewritten paragraph:

Thus, the resin-coated hot dip galvanized steel sheet according to the present invention can be produced by applying an aqueous resin coating material onto a surface of a hot dip galvanized steel sheet, then heating to a predetermined temperature to dry the coating material, and thereby allowing a resin film to be formed on the steel sheet surface. The aqueous resin coating material comprises the foregoing polyolefin copolymer resin emulsion molecular-associated by ion cluster, tannic acid and/or ammonium vanadate, predetermined amounts of silica particles and ~~another~~ a first crosslinking agent (for example, an epoxy-based crosslinking agent) in addition to the aforementioned second crosslinking agent.

Please replace the paragraph beginning at page 22, line 7, with the following rewritten paragraph:

A polyolefin copolymer resin emulsion containing 0.5 to 45 mass % of an ethylenically unsaturated carboxylic acid was neutralized with amine and then ionomerized with sodium hydroxide, thereafter the resulting ionomer was made high in molecular weight with an aziridinyl group-containing organic compound as a second crosslinking agent to prepare emulsion of a polyolefin copolymer resin molecular-associated by ion cluster.

Please replace the paragraph beginning at page 22, line 15, with the following rewritten paragraph:

Further, in terms of solids content, 35 mass % of silica particles (average particle diameter: 4 to 6 nm), 5 mass % of an epoxy-based first crosslinking agent ("EPICLON CR5L," a product of Dainippon Ink & Chemicals Inc.), and 5 mass % of ammonium vanadate were added to the polyolefin copolymer emulsion molecular-associated by ion cluster to afford an aqueous resin coating material. The aqueous resin coating material was then applied to the surface of hot dip galvanized steel sheet (skin pass elongation percentage: 1.0%, surface roughness Ra: 1.0 μm) and was then heat-dried at a sheet temperature of 100°C to give a resin-coated hot dip galvanized steel sheet having a resin film deposited in amount of 1 g/m^2. Resin-coated hot dip galvanized steel sheets obtained in this way were checked for corrosion resistance, the results of which are shown in Table 1 below.

Please replace the paragraph beginning at page 24, line 2, with the following rewritten paragraph:

A polyolefin copolymer resin emulsion containing 20 mass % of an ethylenically unsaturated carboxylic acid was neutralized with amine and ionomerized with sodium hydroxide, then the resulting ionomer was made high in molecular weight by adding an

aziridinyl group-containing organic compound as a second crosslinking agent to prepare a polyolefin copolymer emulsion molecular-associated by ion cluster.

Please replace the paragraph beginning at page 24, line 10, with the following rewritten paragraph:

Then, in terms of solids content, 20 to 60 mass % of silica particles (average particle diameter: 4 to 6 nm), 5 mass % of an epoxy-based first crosslinking agent ("EPICLON CR5L," a product of Dainippon Ink & Chemicals Inc.), and 5 mass % of ammonium vanadate were added to prepare an aqueous resin coating material. The aqueous resin coating material was then applied to the surface of a hot dip galvanized steel sheet (skin pass elongation percentage: 1.0%, surface roughness Ra: 1.0 μm) and was heat-dried at a sheet temperature of 100°C to afford a resin-coated hot dip galvanized steel sheet having a film deposited in an amount of 0.5 g/m^2. Resin-coated hot dip galvanized steel sheets obtained in this way were checked for corrosion resistance, weldability, and expulsion and surface flash condition, the results of which are shown in Table 2 below.

Please replace the paragraph beginning at page 25, line 6, with the following rewritten paragraph:

A polyolefin copolymer resin emulsion containing 20 mass % of an ethylenically unsaturated carboxylic acid was neutralized with amine and ionomerized with sodium hydroxide, then the resulting ionomer was made high in molecular weight by the addition of an aziridinyl group-containing organic compound as a second crosslinking agent to prepare a polyolefin copolymer emulsion molecular-associated by ion cluster.

Please replace the paragraph beginning at page 25, line 14, with the following rewritten paragraph:

Then, in terms of solids content, 35 mass % of silica particles (average particle diameter: 4 to 6 nm), 0 to 10 mass % of an epoxy-based first crosslinking agent ("EPICLON CR5L," a product of Dainippon Ink & Chemicals Inc.), and 5 mass % of ammonium vanadate, to afford an aqueous resin coating material. The aqueous resin coating material was then applied to the surface of a hot dip galvanized steel sheet (skin pass elongation percentage: 1.0%, surface roughness Ra: 1.0 μm) and was heat-dried at a sheet temperature of 100°C to give a resin-coated hot dip galvanized steel sheet having a film deposited in an amount of 0.5 g/m^2. Resin-coated hot dip galvanized steel sheets obtained in this way were checked for corrosion resistance, the results of which are shown in Table 3 below.

Please replace the paragraph beginning at page 26, line 10, with the following rewritten paragraph:

A polyolefin copolymer resin emulsion containing 20 mass % of an ethylenically unsaturated carboxylic acid was neutralized with amine and ionomerized with sodium hydroxide, then the resulting ionomer was made high in molecular weight by the addition of an aziridinyl group-containing organic compound as a second crosslinking agent to prepare a polyolefin copolymer emulsion molecular-associated by ion cluster.

Please replace the paragraph beginning at page 26, line 18, with the following rewritten paragraph:

Then, in terms of solids content, 35 mass % of silica particles (average particle diameter: 4 to 6 nm), 5 mass % of an epoxy-based first crosslinking agent ("EPICLON CR5L," a product of Dainippon Ink & Chemicals Inc.), and 0 to 10 mass % of tannic acid

and/or ammonium vanadate were added to afford an aqueous resin coating material. The aqueous resin coating material was then applied to the surface of a hot dip galvanized steel sheet (skin pass elongation percentage: 1.0%, surface roughness Ra: 1.0 μm) and was heat-dried at a sheet temperature of 100°C to give a resin-coated hot dip galvanized steel sheet having a film deposited in an amount of 0.5 g/m^2. Resin-coated hot dip galvanized steel sheets obtained in this way were checked for corrosion resistance and change of color tone in a high temperature and high humidity environment, the results of which are shown in Table 4 below.

Please replace the paragraph beginning at page 27, line 15, with the following rewritten paragraph:

A polyolefin copolymer emulsion containing 20 mass % of an ethylenically unsaturated carboxylic acid was neutralized with amine or ammonia and ionomerized with sodium hydroxide, then the resulting ionomer was made high in molecular weight by the addition of an aziridinyl group-containing organic compound as a second crosslinking agent to prepare a polyolefin copolymer emulsion molecular-associated by ion cluster.

Please replace the paragraph beginning at page 28, line 8, with the following rewritten paragraph:

Then, in terms of solids content, 35 mass o of silica particles (average particle diameter: 4 to 6 nm), 5 mass % of an epoxy-based first crosslinking agent ("EPICLON CR5L," a product of Dainippon Ink & Chemicals Inc.), and 5 mass % of ammonium vanadate were added to prepare an aqueous resin coating material. The aqueous resin coating material was then applied to the surface of a hot dip galvanized steel sheet (skin pass elongation percentage: 1.0%, surface roughness Ra: 1.0 μm) and was heat-dried at a sheet temperature of

100°C to afford a resin-coated hot dip galvanized steel sheet having a film deposited in an amount of 0.05 to 2.5 g/m^2. Resin-coated hot dip galvanized steel sheets obtained in this way were checked for corrosion resistance, weldability, expulsion and surface flash, interlayer resistance, and machinability, the results of which are shown in Table 5 below.

Please replace the paragraph beginning at page 29, line 2, with the following rewritten paragraph:

A polyolefin copolymer resin emulsion containing 20 mass % of an ethylenically unsaturated carboxylic acid was neutralized with amine and ionomerized with sodium hydroxide, then the resulting ionomer was made high in molecular weight by the addition of an aziridinyl group-containing organic compound as a second crosslinking agent to prepare a polyolefin copolymer emulsion molecular-associated by ion cluster.

Please replace the paragraph beginning at page 29, line 10, with the following rewritten paragraph:

Then, in terms of solids content, 35 mass % of silica particles, 5 mass % of an epoxy-based first crosslinking agent ("EPICLON CR5L," a product of Dainippon Ink & Chemicals Inc.), and 5 mass % of ammonium vanadate were added to afford an aqueous resin coating material. At this time, various types of silica particles having average particle diameters in the range of 4 to 100 nm were selected and used. The aqueous resin coating material was applied to the surface of a hot dip galvanized steel sheet (skin pass elongation percentage: 1.0%, surface roughness Ra: 1.0 μm) and was heat-dried at a sheet temperature of 100°C to give a resin-coated hot dip galvanized steel sheet having a film deposited in an amount of 0.5 g/m^2. Resin-coated hot dip galvanized steel sheet obtained in this way were checked for

corrosion resistance in relation to average particle diameters of silica particles, the results of which are shown in Table 6 below.

Please replace the paragraph beginning at page 30, line 9, with the following rewritten paragraph:

A polyolefin copolymer resin emulsion containing 20 mass % of an ethylenically unsaturated carboxylic acid was neutralized with amine and ionomerized with sodium hydroxide, then the resulting ionomer was made high in molecular weight by the addition of an aziridinyl group-containing organic compound as a second crosslinking agent to prepare a polyolefin copolymer emulsion molecular-associated by ion cluster.

Please replace the paragraph beginning at page 30, line 17, with the following rewritten paragraph:

Then, in terms of solids content, 35 mass % of silica particles (average particle diameter: 4 to 100 nm), 5 mass % of an epoxy-based first crosslinking agent ("EPICLON CR5L," a product of Dainippon Ink & Chemicals Inc.), and 5 mass % of ammonium vanadate were added to prepare an aqueous resin coating material. The aqueous resin coating material was applied to the surface of a hot dip galvanized steel sheet (skin pass elongation percentage: 0 to 4.0%, surface roughness Ra: 1.0 μm) and was heat-dried at a sheet temperature of 100°C to give a resin-coated hot dip galvanized steel sheet having a film deposited in an amount of 0.5 g/m^2. Resin-coated hot dip galvanized steel sheets obtained in this way were checked for corrosion resistance in relation to skin pass elongation percentage, the results of which are shown in Table 7 below.

Please replace the paragraph beginning at page 31, line 12, with the following rewritten paragraph:

A polyolefin copolymer resin emulsion containing 20 mass o of an ethylenically unsaturated carboxylic acid was neutralized with amine and ionomerized with sodium hydroxide, then the resulting ionomer was made high in molecular weight by the addition of an aziridinyl group-containing organic compound as a second crosslinking agent to prepare a polyolefin copolymer emulsion molecular-associated by ion cluster.

Please replace the paragraph beginning at page 32, line 1, with the following rewritten paragraph:

Then, in terms of solids content, 35 mass % of silica particles (average particle diameter: 4 to 100 nm), 5 mass % of an epoxy-based first crosslinking agent ("EPICLON CR5L," a product of Dainippon Ink & Chemicals Inc.), and 5 mass % of ammonium vanadata were added to afford an aqueous resin coating material. The aqueous resin coating material was applied to the surface of a hot dip galvanized steel sheet (skin pass elongation percentage: 0 to 4%, surface roughness Ra: 0.05 to 3.0 μm) and was heat-dried at a sheet temperature of 100°C to give a resin-coated hot dip galvanized steel sheet having a film deposited in an amount of 0.5 g/m^2. Resin-coated hot dip galvanized steel sheet obtained in this way were checked for corrosion resistance in relation to surface roughness Ra, the results of which are shown in Table 8 below.